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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/623,798      | 07/22/2003  | Richard D. Roberts   | XSI.060 / 10X-198   | 5295             |

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RESTON, VA 20191

EXAMINER

DAO, MINH D

ART UNIT

PAPER NUMBER

2618

DATE MAILED: 05/30/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                                      |  |  |
|------------------------------|--------------------------------------|--|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/623,798 | <b>Applicant(s)</b><br>ROBERTS, RICHARD D. |  |
|                              | <b>Examiner</b><br>MINH D. DAO       | <b>Art Unit</b><br>2618                    |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.  
     4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9, 12-24 and 27 is/are rejected.
- 7) ☒ Claim(s) 10, 11, 25 and 26 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____.  |

## **DETAILED ACTION**

### ***Claim Objections***

1. Claims 11 and 26 objected to because of the following informalities: dependent claims 11 and 26 should depend on independent claims 10 and 25 respectively.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1,2,12-15,23,24,27 are rejected under 35 U.S.C. 102(b) as being anticipated by Schilling (US 5,274,665).

Regarding claim 1, Schilling teaches a method of operating a plurality of wireless networks (see col. 2, lines 1-13), comprising: transmitting first signals in a first network at a first carrier frequency; transmitting second signals in a second network at a second carrier frequency, the second carrier frequency being different from the first carrier frequency (see fig. 2E; col. 2, line 53 to col. 3, line 6), wherein the first carrier frequency is offset from a base carrier frequency by an amount equal to  $n$  times an offset frequency, wherein the second carrier frequency is offset from the base carrier frequency by an amount equal to  $m$  times the offset frequency, wherein  $n$  is an integer,

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$m$  is an integer, and  $m$  does not equal  $n$  (see figs. 2E, fig. 3; col. 2, line 53 to col. 3, line 6). In this case, the first carrier frequency and the chip rate of Schilling read on the base carrier frequency and frequency offset of the present invention.

Regarding claim 2, Schilling teaches a method of operating a plurality of wireless networks, as recited in claim 1, wherein  $n$  is 1 and  $m$  is  $-1$  (see figs. 3, 4).

Regarding claim 12, Schilling teaches a method of operating a plurality of wireless networks, as recited in claim 1, wherein the plurality of wireless networks are ultra-wide bandwidth networks (see col. 7, lines 1-14).

Regarding claim 13, the claim includes the limitations as that of claim 1, and therefore is interpreted and rejected for the same reason set forth in the rejection of claim 1.

Regarding claim 14, Schilling teaches a method of operating a plurality of wireless networks, as recited in claim 13, wherein  $k$  is 4 (see col. 23, lines 45-50).

Regarding claim 15, Schilling teaches a method of operating a plurality of wireless networks, as recited in claim 14 wherein  $n_1$  is  $-2$ ,  $n_2$  is  $-1$ ,  $n_3$  is 1, and  $m$  is 2 (see figs. 3 and 4).

Regarding claim 23, Schilling teaches a method of operating a plurality of wireless networks, as recited in claim 13, wherein k is 3 (see col. 2, line 53 to col. 3, line 6).

Regarding claim 24, the claim includes the limitations as that of claim 2, and therefore is interpreted and rejected for the same reason set forth in the rejection of claim 2.

Regarding claim 27, the claim includes the limitations as that of claim 12, and therefore is interpreted and rejected for the same reason set forth in the rejection of claim 12.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 3-9, 16-22 rejected under 35 U.S.C. 103(a) as being unpatentable over Schilling (US 5,274,665).

Regarding claims 3-7, as mentioned above, teaches the limitations of claim 1 but does not mention a specific frequency range. However, since both Schilling and the present invention both teach a method operating of plurality of wireless networks utilizing offset frequency to separate the networks to prevent interference, it is obvious that one could

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design to have their systems operating on any frequency range as long as they meet the goal mentioned above.

Regarding claims 8,9, as mentioned above, teaches the limitations of claim 1 but does not mention a frequency offset. However, since both Schilling and the present invention both teach a method operating of plurality of wireless networks utilizing offset frequency to separate the networks to prevent interference, it is obvious that one could design to have their systems operating on any frequency offset as long as they meet the goal mentioned above.

Regarding claims 16-20, the claims includes the limitations as that of claims 3-7, and therefore is interpreted and rejected for the same reason set forth in the rejection of claims 3-7.

Regarding claims 21,22, the claims include the limitations as that of claims 8,9, and therefore is interpreted and rejected for the same reason set forth in the rejection of claims 38,9.

***Allowable Subject Matter***

5. Claims 10,11,25,26 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Regarding claim 10, Schilling, as mentioned above, teaches the limitations of claim 1 but fails to teach that the method of operating a plurality of wireless networks, as recited in claim 1, further comprising: forming the first signals out of first pulses formed of cycles of a first oscillating signal operating at a first oscillating frequency; and forming the second signals out of second pulses formed of  $p$  cycles of a second oscillating signal operating at a second oscillating frequency, wherein the first oscillating frequency is offset from a base oscillating frequency by an amount equal to  $n.p$  times the offset frequency, and wherein the second oscillating frequency is offset from a base oscillating frequency by an amount equal to  $m.p$  times the offset frequency as specified in the claim.

Regarding claim 25, Schilling, as mentioned above, teaches the limitations of claim 13 but fails to teach that the method of operating a plurality of wireless networks, as recited in claim 13, further comprising: forming the  $i$ th signals out of pulses formed of  $p$  cycles of an  $i$ th oscillating signal operating at an  $i$ th oscillating frequency, wherein the  $i$ th oscillating frequency is offset from a base oscillating frequency by an amount equal to  $n_i.p$  times the offset frequency as specified in the claim.


### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MINH D. DAO whose telephone number is 571-272-7851. The examiner can normally be reached on 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, MATTHEW ANDERSON can be reached on 571-272-4177. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Minh Dao *md*  
AU 2618  
May 24, 2006

  
Matthew Anderson  
Supervisor AU 2618